

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-17. (Canceled)

18. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to ~~claim 16~~ claim 31, wherein the holding means has a pedestal which holds the pillar structure in the vertical direction, the pillar structure being placed thereon on the pedestal with one end ~~thereof of the pillar structure~~ facing downward.

19. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to claim 18, wherein the holding means has a cam which presses downwardly ~~another~~ the other end of the pillar structure held on the pedestal and rotates on the axis of the ~~nearly~~ substantially vertical direction as a common rotating axis.

20. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to claim 19, wherein the outer peripheral shape of the pedestal and that of the cam are ~~nearly~~ substantially the same.

21. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to claim 18, wherein the apparatus further ~~comprising~~ comprises a centering means which holds the pillar structure and the pedestal and/or a cam in a given positional relation.

22. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to claim 18, wherein the apparatus further ~~comprising~~ comprises a following means which drives the smoothing means following the outer periphery of the pedestal and/or a cam so that the smoothing means is disposed at a given position with respect to the outer peripheral surface of the pillar structure.

23. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to claim 22, wherein the following means has a first and a second following rollers which are disposed at a given distance from each other and move backward and forward following the outer periphery of the cam while contacting ~~with the outer periphery of the cam together with the supplying and coating means and the smoothing means, and the first and second following rollers are disposed so that the~~ an angle formed by a line passing through the centers of the respective rollers and the smoothing means is a given angle.

24. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to claim 23, wherein the following means further has a third and a fourth following rollers which move backward and forward following the outer periphery of the pedestal while contacting ~~with the outer periphery of the pedestal together with the supplying and coating means and the smoothing means, and the~~ a rotating axis of the third following roller and that a rotating axis of the first following roller are common and the a rotating axis of the fourth following roller and that a rotating axis of the second following roller are common.

25. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to claim 18, wherein the outer periphery of the pedestal and/or the cam comprise stainless steel or ceramics.

26. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to ~~claim 16~~ claim 31 wherein the smoothing means comprises stainless steel or wear-resistant ceramics.

27. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to ~~claim 16~~ claim 31, wherein the shape of a

section of the pillar structure cut along a plane perpendicular to the direction of the central axis of the pillar structure is circular or elliptical.

28. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to claim 16 claim 31, wherein the pillar structure is a honeycomb structure comprising a plurality of cells which serve as flow paths for fluid.

29. (Previously Presented) ~~An apparatus for coating the outer peripheral surface of a pillar structure~~ The method according to claim 16 claim 31, wherein the supplying and coating means and the smoothing means ~~can~~ rotate together along the outer periphery of the pillar structure.

30. (Canceled)

31. (New) A method for coating an outer peripheral surface of a pillar structure using a coating apparatus, the method comprising:

holding the pillar structure by a holding means of the coating apparatus, the holding means configured to hold the pillar structure in a nearly vertical direction and to rotate together with the held pillar structure on an axis of a substantially vertical direction as a common rotating axis;

supplying and coating the outer peripheral surface of the pillar structure with a coating material from a supplying and coating means of the coating apparatus disposed at a given position with respect to the outer peripheral surface of the pillar structure, wherein:

the supplying and coating means comprises a nozzle having an opening in the form of a slit disposed in a substantially vertical direction,

an upper end of the opening being positioned substantially the same as the position of an upper end of the pillar structure,

the opening having a length in a longer direction that is 30-80% of the length between the upper end and a lower end of the pillar structure, and

the coating material is supplied from the opening of the nozzle to an upper side of the outer peripheral surface of the pillar structure and coated thereon while rotating the pillar structure and the holding means on the axis of substantially vertical direction as a common rotating axis; and

smoothing with a smoothing means of the coating apparatus a coating surface of the supplied and coated coating material between an upper side and a lower side of the outer peripheral surface and a longer side end portion of the smoothing means, the smoothing means having a length in a longer direction that is not shorter than the length between the upper and lower ends of the pillar structure and is disposed in a substantially vertical direction in a position to keep a given distance from the outer peripheral surface or from contacting the outer peripheral surface;

wherein a uniform coating surface is formed on a whole outer peripheral surface of the pillar structure.